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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,364	03/22/2004	Tetsurou Mitsui	0649-0949P	9478

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EXAMINER

WALKE, AMANDA C

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/805,364	Applicant(s) MITSUI ET AL.	
	Examiner Amanda C. Walke	Art Unit 1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al (4,978,603) in view of Saito (6,645,713).

Inoue et al disclose an image-forming process which comprises after imagewise exposing a silver halide photographic material having at least one silver halide emulsion layer composed of silver halide grains having a mean grain size of not larger than 0.15 microns. The examples employ grains having mean grain sizes (ECD's) of 0.15, 0.09, and 0.07, which meet the instant claim limitations. The process of preparing the grains includes a step of Ostwald ripening, and the grains are preferably cubic, which would not be twinned grains, thus meeting the limitations of the instant claim 6. With respect to the COV limitations, the reference teaches that mono-dispersed grains wherein silver halide grains of which at least 95% by weight or number are composed of a group of silver halide grains having grain sizes within $\pm 40\%$, and preferably $\pm 20\%$ of the mean grain size are preferred. The reference fails to specifically teach the type of apparatus/ grain formation process employed in the method of preparing the above cited grains.

Saito discloses a method of preparing silver halide grains in which the grains are formed employing an apparatus substantially free of a residence portion, wherein the grains are continuously formed. The use of the apparatus results in more monodisperse grains.

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Given the teachings of the reference, it would have been obvious to one of ordinary skill in the art to prepare the grains of Inoue et al choosing to employ the apparatus of Saito, with reasonable expectation of achieving a material having high contrast.

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al in view of Saito and Ichikawa et al (5,270,159).

Inoue et al and Saito have been discussed above. While the reference teaches that the grain shave a grain size of 0.15 microns or less and employes grains having sizes of 0.07 microns in its examples, the reference does not specifically teach the size claimed by the instant claim 5.

Ichikawa et al disclose a method of preparing fine grains similar to that of Inoue et al. The reference teaches that it is preferable for the sizes of the fine grains obtained by the process of this invention are not larger than 0.06 microns, preferably not larger than 0.03 microns, and more preferably not larger than 0.01 micron.

Given the teachings of the reference, it would have been obvious to one of ordinary skill in the art to prepare the material of Inoue et al in view of Saito choosing to prepare grains having sizes of as low as 0.01 micron given the teachings of Ichikawa et al with reasonable expectation of achieving a material having high contrast.

Election/Restrictions

4. Newly submitted claims 11 and 12 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The originally filed claims are drawn to a method of producing silver halide fine grains and the newly added claims are drawn to an apparatus which would have been restricted if filed with the original claims.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 11 and 12 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Response to Arguments

5. Applicant's arguments filed 9/21/2006 have been fully considered but they are not persuasive. Applicant has argued that the Saito reference fails to teach a ripening step having a controlled temperature and wherein there is no residence portion (the grains are continuously formed without spending time in a vessel). The examiner points first to the figures of the reference which clearly demonstrate that once the solutions are merged in a merging zone (where the pipes meet see figure 1, labels 22 and 30), where the reference teaches that the zone and reaction tube are kept at a specific temperature (column 8, lines 25-34) and the grains are moved quickly through. It is well known in the art that a grain formation process include ripening, basically crystal growth/ phase separation, and this is what is described by the reference in column 8, where the reference teaches that the crystals in the tube grow in size at a temperature of between 5 and 75 degrees Celsius. Therefore, it is the position of the examiner that the continuous preparation method of Saito would meet the instant claim limitations, and when combined with the Inoue et al reference, would meet the limitations of the instant claims.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda C. Walke whose telephone number is 571-272-1337. The examiner can normally be reached on M-R 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Amanda C Walke
Primary Examiner
Art Unit 1752

ACW

November 27, 2006

Amanda C Walke
AMANDA WALKE
PRIMARY EXAMINER 11/27/06